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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.              | CONFIRMATION NO. |
|---|-------------|----------------------|----------------------------------|------------------|
| 10/639,056  | 08/12/2003  | George L. Bennett    | 58973 (49366)                    | 7155             |
| 21874   | 7590        | 01/21/2005           |                                  |                  |
| EDWARDS & ANGELL, LLP<br>P.O. BOX 55874<br>BOSTON, MA 02205 |             |                      | EXAMINER<br>FREAY, CHARLES GRANT |                  |
|   |             |                      | ART UNIT<br>3746                 | PAPER NUMBER     |

DATE MAILED: 01/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |                                       |  |
|------------------------------|--------------------------------------|---------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/639,056 | <b>Applicant(s)</b><br>BENNETT ET AL. |  |
|                              | <b>Examiner</b><br>Charles G Freay   | <b>Art Unit</b><br>3746               |  |

-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-10 is/are allowed.
- 6) ☒ Claim(s) 1-5 and 11-20 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

This office action is in response to the amendment of November 30, 2004. In making the below rejections the examiner has considered and addressed each of the applicant's arguments.

### ***Information Disclosure Statement***

In the Remarks section of the November 2004 response the applicant indicates that copies of the references which were previously missing were being provided in a Supplemental Information Disclosure Statement. However, neither a Supplemental IDS nor copies of the references were included with the response. Therefore the missing references have not been considered.

### ***Claim Rejections - 35 USC § 112***

The amendments to the claims have clarified the inventive subject matter and the rejection set forth under 35 USC 112, 2<sup>nd</sup> paragraph has been withdrawn.

Claims 1, 2, 4, 5 and 11-20 rejected under 35 U.S.C. 102(a) as being anticipated by Maker et al (USPN 6,412,271) as set forth in the rejection of claims 1, 2, 4 and 11-20 of the previous office action. Maker et al disclose a static line (unnumbered) at the outlet of the main metering valve (42) as claimed.

Claims 1, 2 and 17-20 are rejected under 35 U.S.C. 102(a) as being anticipated by Reuter et al (USPN 5,715,674) as set forth in the previous office action.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over either of Reuter et al or Maker et al as set forth in the previous office action.

***Allowable Subject Matter***

Claims 7-10 are allowed.

Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

Applicant's arguments filed November 30, 2004 have been fully considered but they are not persuasive. The applicant argues against each of the Maker et al and Reuter et al rejections because neither reference regulates the spill return flow. The examiner respectfully disagrees.

With regards to Maker et al the examiner notes col. 1 lines 16-22 which set forth that there is an engine fuel flow regulation means (corresponding to the metering valve 42) and a pump control means (corresponding to the spill valve 43) which is controlled in response to the engine fuel flow regulation means (42). Further note col. 5 lines 14 -

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17 which states that "the effective area of the orifice 44 is continuously varied in accordance with pressure differential across the metering valve 42". Clearly, metering valve 42 is independently controlled and spill valve 43 and the spill return flow are regulated in response to the conditions relating to the metering valve.

With regards to regards to Reuter et al the applicant argues that the "pump control valve 208 of Reuter et al regulates the metering valve but it does not regulate the spill return flow which is allowed to vary". The examiner disagrees. In Reuter et al the metering valve (136) is independently controlled by electronic engine control (176) (see col. 3 lines 34-45). In response to the metering valve (136) the valve (208) regulates the spill return flow (see col. 3 lines 62-67 and col. 5 lines 40-50 approximately). Clearly in each of Maker et al and Reuter et al spill return flow is regulated.

With regards to claim 5 the examiner notes that the applicants amendments which clarified what was being referred to as the "fuel metering unit" in the claims has resulted in claim 5 being added to the earlier rejection with respect to Maker et al.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

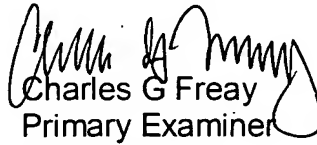
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles G Freay whose telephone number is 571-272-4827. The examiner can normally be reached on Monday through Friday 8:30 A.M. to 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Charles G Freay  
Primary Examiner  
Art Unit 3746

CGF  
January 18, 2005